

AMENDMENTS TO THE CLAIMS

1. (Currently amended) A method of producing microstructure which comprises a step of making pores in a substrate to become a mold by irradiation with a focused energy beam and a step of growing a microstructure in the thus made pores;

wherein said microstructure is grown from a catalyst substance which has been attached to the bottom of the previously made pores; and

wherein said catalyst substance is precipitated at the bottom of the pores by irradiating the previously made pores with a focused energy beam in an atmosphere of a gas as a raw material of the catalyst.

2. (Original) The method of producing microstructure as defined in Claim 1, wherein said energy beam is an ion beam, electron beam, or laser beam.

3. (Original) The method of producing microstructure as defined in Claim 2, wherein said energy beam is one which is containing metal ions, such as Ga⁺, Si⁺, Si⁺⁺, Be⁺, Be⁺⁺, Au⁺, and Au⁺⁺ or gaseous ions, such as H⁺ and He⁺.

4. (Original) The method of producing microstructure as defined in Claim 1, wherein said pores have a diameter no larger than 100 nm.

5. (Original) The method of producing microstructure as defined in Claim 2, wherein said ion beam is irradiated in such a way that the position of irradiation is within an error of ± 5 nm.

6. (Original) The method of producing microstructure as defined in Claim 5, wherein said pores are made at intervals of 100 nm and in any array pattern.

7. (Original) The method of producing microstructure as defined in Claim 1, wherein said microstructure is grown in a gas phase, liquid phase, or solid phase.

8 - 22. (Canceled)